

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 68103-PCT/JPW/JL	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US04/36781	International filing date (day/month/year) 05 November 2004 (05.11.2004)	(Earliest) Priority Date (day/month/year) 07 November 2003 (07.11.2003)
Applicant THE TRUSTEES OF COLUMBIA UNIVERSITY IN NYC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the Report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b));
- b.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.
- 2.  Certain claims were found unsearchable (See Box No. II)
- 3.  Unity of invention is lacking (See Box No. III)
- 4. With regard to the title,
  - the text is approved as submitted by the applicant.
  - the text has been established by this Authority to read as follows:
- 5. With regard to the abstract,
  - the text is approved as submitted by the applicant.
  - the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
- 6. With regard to the drawings,
  - a. the figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_
    - as suggested by the applicant.
    - as selected by this Authority, because the applicant failed to suggest a figure.
    - as selected by this Authority, because this figure better characterizes the invention.
  - b.  none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (January 2004)

Applicants: Kausik Si and Eric Kandel  
U.S. Serial No. NOT YET KNOWN  
Filed: Herewith (as §371 national stage  
of PCT/US2004/036781)  
Exhibit 1

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US04/36781

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: 2 and 15 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
No meaningful search could be carried out because sequence identifiers and a sequence listing were not provided for the sequences of claims 2 and 5.
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**  

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/36781

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : C12Q 1/68, 1/02, 1/34; C07K 14/00  
US CL : 435/6, 29, 18; 530/350

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/6, 29, 18; 530/350

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	SI et al. A Neuronal Isoform of the Aplysia CPEB Has Prion-Like Properties. Cell, December 2003, Vol. 115, No. 7, pages 879-891, see the entire reference.	1, 3-14 and 16-43
X	LIU et al. The Cytoplasmic Polyadenylation Element Binding Protein ad Polyadenylation of Messenger RNA in Aplysia Neurons. Brain Research, January 2003, Vol. 959, No. 1, pages 68-79, especially pages 71-73 and Figure 4.	37-39
A, P	DARNELL, R.B. Memory, Synaptic Translation, and...Prions? Cell, December 2003, Vol. 115, No. 7, pages 767-770.	1, 3-14 and 16-43
A	CULP et al. C-mos and cdc2 Cooperate in the Translational Activation of Fibroblast Growth Factor Receptor-1 during Xenopus Oocyte Maturation. Molecular Biology of the Cell, November 1999, Vol. 10, pges 3567-3581.	1, 3-14 and 16-36

Further documents are listed in the continuation of Box C.

See patent family annex.

Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

25 July 2005 (25.07.2005)

Date of mailing of the international search report

18 AUG 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Jennifer Dunston

Telephone No. 571-272-0507

**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US04/36781

Continuation of B. FIELDS SEARCHED Item 3:  
EAST, MEDLINE, EMBASE, BIOSIS, CAPLUS

key words: prion, cpeb, cpeb1, apcpeb, cytoplasmic polyadenylation element, aplysia, gal-cpe, lacz, beta-galactosidase, cpe, aggregate